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10/658,481	09/09/2003	Igor V. Barsukov	0626-0004.04	2032

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EXAMINER

DOVE, TRACY MAE

ART UNIT	PAPER NUMBER
1745	

DATE MAILED: 11/03/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/658,481

Applicant(s)

BARSUKOV ET AL.

Examiner

Tracy Dove

Art Unit

1745

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 09 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 2,4 and 22-26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 2,4 and 22-26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 9/9/03.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Information Disclosure Statement***

The information disclosure statement (IDS) submitted on 9/9/03 has been considered by the examiner.

### ***Priority***

Applicant's claim for domestic priority under 35 U.S.C. 119(e) is acknowledged. However, the provisional application upon which priority is claimed fails to provide adequate support under 35 U.S.C. 112 for claims 4 and 22-26 of this application.

### ***Specification***

The disclosure is objected to because of the following informalities: on page 1, first paragraph, the specification should be amended to recite U.S. Application Serial No. 09/800,260 is now U.S. Patent No. 6,660,434, which issued 12/9/03.

Appropriate correction is required.

The disclosure is objected to because of the following informalities: at paragraph 0008, the specification recites "a purity of between 90.0 and 99.9 C (based on LOI)", which should recite "a purity of between 90.0 and 99.9% C (based on LOI)".

Appropriate correction is required.

The amendment filed 9/9/03 is objected to under 35 U.S.C. 132 because it introduces new matter into the disclosure. 35 U.S.C. 132 states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: "The mixtures may contain between 0.1 and 99.9 wt% expanded graphite". This application is a continuation of 09/800,260 now U.S. 6,660,434, which does not

Art Unit: 1745

support "The mixtures may contain between 0.1 and 99.9 wt% expanded graphite". The patent discloses "The mixtures may contain between 0.1 and 99.9 wt% synthetic graphite" (2:14-15).

Applicant is required to cancel the new matter in the reply to this Office Action.

### ***Claim Objections***

Claim 25 is objected to because of the following informalities: "an average article size" should recite "an average particle size". Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 4 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Claim 4 recites "the mixture comprises between 0.1 and 99.9 wt% expanded graphite". This application is a continuation of 09/800,260 now U.S. 6,660,434, which does not support "the mixture comprises between 0.1 and 99.9 wt% expanded graphite". The patent discloses "the mixture comprises between 0.1 and 99.9 wt% synthetic graphite" (claim 9).

Claims 22-26 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed

Art Unit: 1745

invention. Claim 22 recites “the carbon particles including between 25% and 75% non-expanded graphite particles by weight and between 25% and 75% expanded graphite particles by weight”, which is not supported by the specification as filed. The specification does not disclose the claimed weight percent ranges of claim 22 and does not even recite the term “non-expanded”. Claim 23 recites the “cathode comprises between 80% and 90% manganese dioxide by weight and between 2.0% and 7.0% carbon particle by weight”, which is not supported by the specification as filed. Applicant asserts that 92-95.2 wt% EMD and 4.8-8 wt% carbon disclosed in the present specification support the ranges of claim 23. This is not correct. A manganese dioxide weight percent range of 92-95.2 does not even overlap with the claimed weight percent range of 80-90. Furthermore, a carbon weight percent range of 4.8-8 does not support the entire claimed weight percent range of 2-7. Regarding claim 24, the specification as filed does not provide support for the endpoints of the claimed carbon weight percent range. The specification does not support the claimed particle size range of claim 25. The specification as filed does not provide support for the endpoints of the claimed expanded graphite particle size range. Regarding claim 26, the specification does not support the limitation “the carbon particles including between 25% and 75% non-expanded graphite particles by weight and between 25% and 75% expanded graphite particles by weight”. The specification does not disclose the claimed weight percent ranges of claim 26 and does not even recite the term “non-expanded”.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

Art Unit: 1745

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 2 is rejection under 35 U.S.C. 102(e) and claim 4 is rejected under 35

U.S.C. 102(b) as being anticipated by Mercuri, US 5,985,452.

Note only claim 2 is entitled to the domestic priority date of provisional application

60/187,306.

Mercuri teaches a graphite mixture consisting of 0.18 pounds of unexpanded natural graphite flake blended with 1 pound of expanded natural graphite flake. The graphite mixture consists of about 85 wt% of expanded natural graphite flake and about 15wt% of unexpanded natural flake graphite. See Example III.

Thus the claims are anticipated.

\*\*

Claims 4 and 22-26 are rejected under 35 U.S.C. 102(e) as being anticipated by Davis et al., US 6,451,486.

See claims 1, 5, 6, 10 and 16 of Davis. Thus, the claims are anticipated.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tracy Dove whose telephone number is 571-272-1285. The examiner can normally be reached on Monday-Thursday (9:00-7:30).

Art Unit: 1745

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Pat Ryan can be reached on 571-272-1292. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'Tracy Dove', with a stylized, cursive script.

Tracy Dove  
Patent Examiner  
Technology Center 1700  
Art Unit 1745

October 28, 2004